

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: September 21, 2004, 17:07:10 ; Search time 128 Seconds

(without alignments)
 672.373 Million cell updates/sec

Title: US-09-875-456A-14

Perfect score: 1444

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Scoring table: BLOSSUM62

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Searched: 1342298 seqs, 321133274 residues

Total number of hits satisfying chosen parameters: 1342398

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing First 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	1444	100.0	268	9 US-09-875-456A-14	Sequence 14, Appli
2	1444	100.0	268	15 US-10-1401-9161-14	Sequence 14, Appli
3	783	54.2	218	14 US-10-142-201B-8	Sequence 8, Appli
4	751	52.0	218	9 US-01-997-579-44	Sequence 44, Appli
5	749	51.9	218	13 US-10-029-191-20	Sequence 20, Appli
6	258.5	17.9	159	9 US-09-997-579-22	Sequence 22, Appli
7	258.5	17.9	215	9 US-09-997-579-2	Sequence 2, Appli
8	258.5	17.9	215	14 US-10-142-201B-11	Sequence 11, Appli
9	257.5	17.8	159	9 US-09-997-579-23	Sequence 23, Appli
10	257.5	17.8	191	13 US-10-029-191-14	Sequence 4, Appli
11	257.5	17.8	215	9 US-09-997-579-21	Sequence 1, Appli
12	257.5	17.8	215	13 US-10-029-191-2	Sequence 12, Appli
13	257.5	17.8	215	14 US-10-142-201B-12	Sequence 5, Appli
14	251	17.4	111	13 US-10-029-191-5	Sequence 20, Appli
15	115.5	8.0	209	14 US-10-095-131A-24	Sequence 24, Appli

SUMMARIES

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Db	1 MGRLLALVVAALVSSAACGCCVEDSETAVYGMTPKILICSKCRSETNAETTEWTER	100.0%	Qy	100.0%	Best Local Similarity 100.0%; Matches 268; Conservative 0; SEQ ID NO: 14
Qy	61 QKGTEFVKILRYENVQLEDDEPREGTVWNSRGTQDLSIIFINVTNHSQDYE	100.0%	Qy	100.0%	FILE REFERENCE: ORT-1221
Db	61 QKGTEFVKILRYENVQLEDDEPREGTVWNSRGTQDLSIIFINVTNHSQDYE	100.0%	Qy	100.0%	CURRENT APPLICATION NUMBER: US/09/875,456A
Qy	61 QKGTEFVKILRYENVQLEDDEPREGTVWNSRGTQDLSIIFINVTNHSQDYE	100.0%	Qy	100.0%	CURRENT FILING DATE: 2001-09-10
Db	61 QKGTEFVKILRYENVQLEDDEPREGTVWNSRGTQDLSIIFINVTNHSQDYE	100.0%	Qy	100.0%	NUMBER OF SEQ ID NOS: 14
Qy	121 CHYRLLFFENYEHNTSVVKIHIEVVVDKGESEGAACPFYTTHRARWRDQADRTGWL	100.0%	Qy	100.0%	SOFTWARE: PatentIn Ver. 2.1
Db	121 CHYRLLFFENYEHNTSVVKIHIEVVVDKGESEGAACPFYTTHRARWRDQADRTGWL	100.0%	Qy	100.0%	LENGTH: 268
Qy	181 CAWPANRPOQAEGEGSSPSPSCPLQWPLFLSSPRRGQSMPVPHRSGYRTOLCHLCMCTS	100.0%	Qy	100.0%	TYPE: PRT
Qy	181 CAWPANRPOQAEGEGSSPSPSCPLQWPLFLSSPRRGQSMPVPHRSGYRTOLCHLCMCTS	100.0%	Qy	100.0%	ORGANISM: Homo sapiens
US-09-875-456A-14	US-09-875-456A-14	100.0%	US-09-875-456A-14	100.0%	SEQ ID NO: 14

ALIGNMENTS

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RESULT 1
US-09-875-456A-14
; Sequence 14, Application US/09875456A
; Patent No. US200004229A1
; GENERAL INFORMATION:
; APPLICANT: Codd, Ellen
; APPLICANT: D'Andrea, Michael
; TITLE OF INVENTION: DNAs encoding human betalai sodium channel subunit
; FILE REFERENCE: ORT-1221
; CURRENT APPLICATION NUMBER: US/09/875,456A
; CURRENT FILING DATE: 2001-09-10
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn Ver. 2.1
; LENGTH: 268
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-875-456A-14
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RESULT 2
 US-10-401-916-14
 ; Sequence 14, Application US/10401916
 ; Publication No. US2004002439A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Qin, Ning
 ; Codd, Ellen
 ; APPLICANT: D'Andrea, Michael
 ; TITLE OF INVENTION: DNAs encoding human betala sodium channel subunit
 ; FILE REFERENCE: ORT-1221
 ; CURRENT FILING DATE: 2003-03-28
 ; PRIOR APPLICATION NUMBER: US/10/401,916
 ; NUMBER OF SEQ ID NOS: 14
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO: 14
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-401-916-14

Query Match 100.0%; Score 1444; DB 15; Length 268;
 Best Local Similarity 100.0%; Pred. No. 4.6e-14;
 * Matches 268; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MGRLLLVGALVSSAGGGCVDSEEFKILRYENEVQLLEDERPFRGVWNGSGTQDLSITFTNVYHSGDYE 60
 Db 1 MGRLLLVGALVSSAGGGCVDSEEFKILRYENEVQLLEDERPFRGVWNGSGTQDLSITFTNVYHSGDYE 60

Qy 121 CHYRLLFFENYEHNTSVVKKHIEVYDKGSGAACPFVTYHRRARWRDWAQDRTGML 180
 Db 121 CHYRLLFFENYEHNTSVVKKHIEVYDKGSGAACPFVTYHRRARWRDWAQDRTGML 180

Qy 181 CAWPANPQRAGEGSSPSCPQLMPLFSSPRQCQSPMPYHRSRGYRQLCHLCMMS 240
 Db 181 CAWPANPQRAGEGSSPSCPQLMPLFSSPRQCQSPMPYHRSRGYRQLCHLCMMS 240

Qy 241 GRCLLSSQRVVGLPSPITIRCVSRGVV 268
 Db 241 GRCLLSSQRVVGLPSPITIRCVSRGVV 268

RESULT 3
 US-10-142-201B-8
 ; Sequence 8, Application US/10142201B
 ; GENERAL INFORMATION:
 ; APPLICANT: Millennium Pharmaceuticals Inc.
 ; CURTIS, Rory A.J.
 ; TITLE OF INVENTION: 98359, A SODIUM CHANNEL BETA-4 SUBUNIT,
 ; FILE REFERENCE: MP1-2001-1061N(M)
 ; CURRENT FILING DATE: 2002-05-09
 ; PRIOR APPLICATION NUMBER: US 60/289,893
 ; NUMBER OF SEQ ID NOS: 12
 ; SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO: 8
 ; TYPE: PRT

RESULT 4
 US-09-997-579-44
 ; Sequence 44, Application US/09997579
 ; Patent No. US20020113203A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Cambridge University Technical Services
 ; TITLE OF INVENTION: A novel family of beta sub-unit proteins from a voltage gated sodium channels
 ; TITLE OF INVENTION: nucleic acids encoding them and therapeutic or diagnostic uses
 ; FILE REFERENCE: 674558-2001
 ; CURRENT APPLICATION NUMBER: US/09/997,579
 ; CURRENT FILING DATE: 2002-04-05
 ; PRIOR APPLICATION NUMBER: PCT/EP00/01783
 ; PRIOR FILING DATE: 2000-02-24
 ; PRIOR APPLICATION NUMBER: PCT/EP00/01783
 ; PRIOR FILING DATE: 2000-02-24
 ; NUMBER OF SEQ ID NOS: 47
 ; SEQ ID NO: 44
 ; LENGTH: 218
 ; TYPE: PRT
 ; ORGANISM: Rat
 US-09-997-579-44

Query Match 52.0%; Score 751; DB 9; Length 218;
 Best Local Similarity 92.9%; Pred. No. 1e-65;
 * Matches 144; Conservative 2; Mismatches 9; Indels 0; Gaps 0;

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 Db 1 MGRLLLVGALVSSAGGGCVDSEEFKILRYENEVQLLEDERPFRGVWNGSGTQDLSITFTNVYHSGDYE 60

Qy 61 QKGTEEFKILRYENEVQLLEDERPFRGVWNGSGTQDLSITFTNVYHSGDYE 120
 Db 61 QKGTEEFKILRYENEVQLLEDERPFRGVWNGSGTQDLSITFTNVYHSGDYE 120

Qy 121 CHYRLLFFENYEHNTSVVKKHIEVYDKGSGAACPFVTYHRRARWRDWAQDRTGML 180
 Db 121 CHYRLLFFENYEHNTSVVKKHIEVYDKGSGAACPFVTYHRRARWRDWAQDRTGML 180

Qy 181 CAWPANPQRAGEGSSPSCPQLMPLFSSPRQCQSPMPYHRSRGYRQLCHLCMMS 240
 Db 181 CAWPANPQRAGEGSSPSCPQLMPLFSSPRQCQSPMPYHRSRGYRQLCHLCMMS 240

Qy 241 GRCLLSSQRVVGLPSPITIRCVSRGVV 268
 Db 241 GRCLLSSQRVVGLPSPITIRCVSRGVV 268

RESULT 5
 US-10-029-191-20
 ; Sequence 20, Application US/10029191
 ; Publication No. US20020160453A1
 ; GENERAL INFORMATION:
 ; APPLICANT: CURTIS, Rory A.J.
 ; TITLE OF INVENTION: NOVEL GENE ENCODING A SODIUM CHANNEL BETA-3 SUBUNIT
 ; FILE REFERENCE: 210147-00XX/5U1
 ; CURRENT APPLICATION NUMBER: US/10/029,191
 ; CURRENT FILING DATE: 2001-12-20
 ; PRIOR APPLICATION NUMBER: 09/565,978
 ; NUMBER OF SEQ ID NOS: 12
 ; SOFTWARE: FastSEQ for Windows Version 4.0
 ; SEQ ID NO: 8
 ; TYPE: PRT

Page 3

Db 124 REFPEAAHRPFVKTTRLLPLRVTEAGE 151

RESULT 9
US-09-997-579-23
; Sequence 23, Application US/09997579
; Patent No. US200213203A1

; GENERAL INFORMATION:
; TITLE OF INVENTION: Cambridge University Technical Services
; TITLE OF INVENTION: A novel family of beta sub-unit proteins from a voltage gated sodium channel
; TITLE OF INVENTION: nucleic acids encoding them and therapeutic or diagnostic uses thereof
; FILE REFERENCE: 674558-2001

; CURRENT FILING DATE: 2002-04-05
; PRIOR APPLICATION NUMBER: PCT/EP00/01783

; PRIOR FILING DATE: 2000-12-24
; PRIOR APPLICATION NUMBER: 60129473

; PRIOR FILING DATE: 2000-02-24
; NUMBER OF SEQ ID NOS: 47
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO: 23

; LENGTH: 159
; TYPE: PRT
; ORGANISM: Rat
US-09-997-579-23

Query Match Score 17.8%; Best Local Similarity 44.7%; Matches 59; Conservative 19; Mismatches 47; Indels 7; Gaps 4;

Db 26 CVEVPSETAVQGNPMKRCISMRKREVEATVVFYRPGKDFL-1YEYRNHQEV 84

Qy 21 CVEVDSETAVGTMTEKILCISCKRSSTNAETFTENTFRKGTEEFVKILRYENEVQL 80

Db 26 CVEVPSETAVQGNPMKRCISMRKREVEATVVFYRPGKDFL-1YEYRNHQEV 84

Qy 81 EEDERFEGRVWNGSRGCKDLDLSIFTNTVNTYNSDYECHYRLLFFENYEHTSVVK 140

Db 85 ESP--FOGRLQNGS--KDLQDVSTVNTLNDGGYTNCVSREFEAEHRPFVKTTR 139

Qy 141 KIHIEVVDK-GE 151

Db 140 LIPLRVTEAGE 151

RESULT 10
US-10-029-191-4
; Sequence 4, Application US/10029191
; Publication No. US2002160453A1

; GENERAL INFORMATION:
; APPLICANT: CURTIS, RORY A.J.
; TITLE OF INVENTION: NOVEL GENE ENCODING A SODIUM CHANNEL BETA-3 SUBUNIT
; FILE REFERENCE: 210147.00XX/SU1

; CURRENT FILING DATE: 2001-12-20
; PRIOR APPLICATION NUMBER: 09569,978

; PRIOR FILING DATE: 2000-05-12
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO: 4
; LENGTH: 191
; TYPE: PRT
; ORGANISM: Rattus sp.

Query Match Score 17.8%; Best Local Similarity 44.7%; Matches 59; Conservative 19; Mismatches 47; Indels 7; Gaps 4;

Db 21 CVEVDSETAVGTMTEKILCISCKRSSTNAETFTENTFRKGTEEFVKILRYENEVQL 80

Qy 22 CVEVDSETAVGTMTEKILCISCKRSSTNAETFTENTFRKGTEEFVKILRYENEVQL 80

Db 26 CVEVPSETAVQGNPMKRCISMRKREVEATVVFYRPGKDFL-1YEYRNHQEV 84

Qy 81 EEDERFEGRVWNGSRGCKDLDLSIFTNTVNTYNSDYECHYRLLFFENYEHTSVVK 140

Db 85 ESP--FOGRLQNGS--KDLQDVSTVNTLNDGGYTNCVSREFEAEHRPFVKTTR 139

Qy 141 KIHIEVVDK-GE 151

Db 140 LIPLRVTEAGE 151

RESULT 12
US-10-029-191-2
; Sequence 2, Application US/10029191
; Publication No. US2002160453A1

; GENERAL INFORMATION:
; APPLICANT: CURTIS, RORY A.J.
; TITLE OF INVENTION: NOVEL GENE ENCODING A SODIUM CHANNEL BETA-3 SUBUNIT
; FILE REFERENCE: 210147.00XX/SU1

; CURRENT FILING DATE: 2001-12-20
; PRIOR APPLICATION NUMBER: 09569,978

; PRIOR FILING DATE: 1999-05-14
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO: 4
; LENGTH: 191
; TYPE: PRT
; ORGANISM: Rattus sp.

Query Match Score 17.8%; Best Local Similarity 44.7%; Matches 59; Conservative 19; Mismatches 47; Indels 7; Gaps 4;

Db 22 CVEVDSETAVGTMTEKILCISCKRSSTNAETFTENTFRKGTEEFVKILRYENEVQL 80

Qy 21 CVEVDSETAVGTMTEKILCISCKRSSTNAETFTENTFRKGTEEFVKILRYENEVQL 80

Db 26 CVEVPSETAVQGNPMKRCISMRKREVEATVVFYRPGKDFL-1YEYRNHQEV 84

Qy 81 EEDERFEGRVWNGSRGCKDLDLSIFTNTVNTYNSDYECHYRLLFFENYEHTSVVK 140

Db 85 ESP--FOGRLQNGS--KDLQDVSTVNTLNDGGYTNCVSREFEAEHRPFVKTTR 139

Qy 141 KIHIEVVDK-GE 151

Db 140 LIPLRVTEAGE 151

US-10-029-191-2

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Matches 59; Conservative 19; Mismatches 47; Indels 7; Gaps 4;

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Qy 81 EEDERFEGRVWNGSRGKTDQLDLSIFTINVTYNNHSDYECHYVRLIFFENYEHTNSVVK 140
Db 85 ESP -FOGRQLQNGS -- KDLQDVSVITLVNLNDSGLYTCNVSRTEFEAHRPFYKTR 139

Qy 141 KIHIEVDK-GE 151
Db 140 LIPLRVTEPAGE 151

RESULT 13
US-10-142-201B-12
Sequence 12, Application US/1042201B
Publication No. US20030022205A1
GENERAL INFORMATION:
APPLICANT: Millennium Pharmaceuticals Inc.
TITLE OF INVENTION: 98359, A SODIUM CHANNEL BETA 4 SUBUNIT,
TITLE OF INVENTION: AND USES THEREFOR
FILE REFERENCE: MPT2001-1061PRN(M)
CURRENT APPLICATION NUMBER: US/10/142,201B
CURRENT FILING DATE: 2002-05-09
PRIOR APPLICATION NUMBER: US 60/289,893
PRIOR FILING DATE: 2001-05-09
NUMBER OF SEQ ID NOS: 12
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO: 12
LENGTH: 215
TYPE: PRT
ORGANISM: Rattus norvegicus
US-10-142-201B-12

Query Match 17.8%; Score 257.5; DB 14; Length 215;
Best Local Similarity 44.7%; Pred. No. 5.8e-17;
Matches 59; Conservative 19; Mismatches 47; Indels 7; Gaps 4;

Qy 21 CVEVDSETEAVYGMTEKILCISKRSSETNAETFTEFVKGTEEFVKILRYENEVLCL 80
Db 26 CVEVPSETEAVQGNPMKURCISMRKREVEATVVEYRPGGKDL-IYEYRNQEV 84

Qy 81 EEDERFEGRVWNGSRGKTDQLDLSIFTINVTYNNHSDYECHYVRLIFFENYEHTNSVVK 140
Db 85 ESP -FOGRQLQNGS -- KDLQDVSVITLVNLNDSGLYTCNVSRTEFEAHRPFYKTR 139

Qy 141 KIHIEVDK-GE 151
Db 140 LIPLRVTEPAGE 151

RESULT 14
US-10-029-191-5
Sequence 5, Application US/10029191
Publication No. US20020160453A1
GENERAL INFORMATION:
APPLICANT: CURTIS, Rory A.J.
TITLE OF INVENTION: PROTEIN NEUROKALMODULIN
FILE REFERENCE: 10147.00XX/51
CURRENT APPLICATION NUMBER: US/10/029,191
PRIORITY DATE: 2001-12-20
PRIOR APPLICATION NUMBER: 09/569,978
PRIOR FILING DATE: 2000-05-12
PRIOR APPLICATION NUMBER: US 60/134,198
PRIOR FILING DATE: 1999-05-14

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Best Local Similarity 50.0%; Pred. No. 1.e-16;
Matches 55; Conservative 14; Mismatches 35; Indels 6; Gaps 3;

Qy 21 CVEVDSETEAVYGMTEKILCISKRSSETNAETFTEFVKGTEEFVKILRYENEVLQL 80
Db 22 CVEVPSETEAVQGNPMKURCISMRKREVEATVVEYRPGGKDFL-IYEYRNHQEV 60

Qy 81 EEDERFEGRVWNGSRGKTDQLDLSIFTINVTYNNHSDGYECHYVRLIFFENYEHTNSVVK 130
Db 61 ESP - FQGRQLQNGS -- KDLQDVSVITLVNLNDSGLYTCNVSREREFE 105

RESULT 15
US-10-095-131A-20
Sequence 20, Application US/10095131A
Publication No. US20030171565A1
GENERAL INFORMATION:
APPLICANT: Zhao, Zhihua
TITLE OF INVENTION: PURIFICATION AND ISOLATED PROTEIN ZERO RELATED (PZR) AND
TITLE OF INVENTION: THERAPEUTIC AND SCREENING METHODS USING SAME
FILE REFERENCE: Attorney Docket No. US20030171565A1 1242-11/2/2
CURRENT APPLICATION NUMBER: US/10/095,131A
CURRENT FILING DATE: 2002-03-11
NUMBER OF SEQ ID NOS: 49
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO: 20
LENGTH: 209
TYPE: PRT
ORGANISM: Homo sapiens
US-10-095-131A-20

Query Match 8.0%; Score 115.5; DB 14; Length 209;
Best Local Similarity 30.6%; Pred. No. 0.006;
Matches 38; Conservative 17; Mismatches 62; Indels 7; Gaps 4;

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Db 18 RWLWSVLAAGLILTGVSALEVTPKEIFVANGTQGLTC -KFKSTSTTGGLTSVSHSP 76

Qy 60 RQKGTTEEFVKILRYENEVLQLEEDERFEGRVWNGSRGKTDQLDLSIFTINVTYNNHSDGY 119
Db 77 QPEGADTTVSFFHYSQQVYLNPPFRDISW -- AGDLDKKDASINTENDOFIHTGY 133

Qy 120 ECHV 123
Db 134 ICDV 137

Search completed: September 21, 2004, 17:20:20
Job time : 129 secs



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OM protein - protein search, using sw model

Run on: September 21, 2004, 16:59:29 ; Search time 33 Seconds
(without alignments)
419,265 Million cell updates/sec

Title: US-09-875-456A-14
Perfect score: 1444
Sequence: 1. MGRIILALVGAALVSSACGG.....QRVVLGLPGLIIIRCVSRGVV 268

Scoring table: BIOSIM62
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Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the core of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query	Match	Length	DB ID	Description
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2	258.5	17.9	159	4	US-09-975-579-22	Sequence 2, App1
3	258.5	17.9	215	4	US-09-975-579-2	Sequence 23, App1
4	257.5	17.8	159	4	US-09-975-579-23	Sequence 1, App1
5	257.5	17.8	215	4	US-09-975-579-1	Sequence 20, App1
6	115.5	8.0	209	4	US-09-975-503-20	Sequence 24, App1
7	115.5	8.0	209	4	US-09-975-503-24	Sequence 4, App1
8	115.5	8.0	269	4	US-09-975-503-4	Sequence 6, App1
9	115.5	8.0	269	4	US-09-975-503-6	Sequence 8, App1
10	115.5	8.0	269	4	US-09-975-503-8	Sequence 34, App1
11	114.5	7.9	159	4	US-09-975-503-34	Sequence 38, App1
12	114.5	7.9	159	4	US-09-975-503-38	Sequence 42, App1
13	114.5	7.9	199	4	US-09-975-503-42	Sequence 46, App1
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18	112.5	7.8	159	4	US-09-975-503-40	Sequence 40, App1
19	112.5	7.8	199	4	US-09-975-503-44	Sequence 44, App1
20	112.5	7.8	199	4	US-09-975-503-48	Sequence 48, App1
21	107.5	7.8	199	4	US-09-975-503-26	Sequence 26, App1
22	107.5	7.4	270	4	US-09-975-503-28	Sequence 28, App1
23	107.5	7.4	270	4	US-09-975-503-30	Sequence 30, App1
24	107.5	7.4	270	4	US-09-975-503-32	Sequence 32, App1
25	107.5	7.4	270	4	US-09-975-503-34	Sequence 9, App1
26	98	6.8	380	3	US-08-459-933A-9	Sequence 8, App1
27	98	6.8	380	4	US-09-393-212-9	Sequence 9, App1

ALIGNMENTS

RESULT 1
US-09-975-579-44
; Sequence 44, Application US/09997579
; Patent No. 6593365
; GENERAL INFORMATION:
; APPLICANT: Cambridge University Technical Services
; TITLE OF INVENTION: A novel family of beta sub-unit proteins from a voltage gated so channel
; TITLE OF INVENTION: nucleic acids encoding them and therapeutic or diagnostic uses
; CURRENT APPLICATION NUMBER: US/09/97579
; CURRENT FILING DATE: 2002-04-05
; PRIORITY APPLICATION NUMBER: PCT/EP00/01783
; PRIOR FILING DATE: 2000-02-24
; PRIORITY APPLICATION NUMBER: 60,129,473
; PRIORITY FILING DATE: 2000-02-24
; NUMBER OF SEQ ID NO: 47
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO: 44
; LENGTH: 218
; TYPE: PRT
; ORGANISM: Rat
US-09-975-579-44

Query Match 52.0%; Score 751; DB 4; Length 218;
Best Local Similarity 92.9%; Pred. No. 1.6e-72;
Matches 144; Conservative 2; Mismatches 9; Indels 0; Gaps 0;

QY 1 MGRLIALVGAALVSSAGGCCVEDSETAEVGMTPKILCISKRSETNAETFTWTFR 60
Db 1 MGTLIALVGAIVSSAWGCGEVDSSETAEVGMTPKILCISKRSETTAETFTWTFR 60

QY 61 QKGEEFPKILRVENEVQLQEBEDEFRGRVWNSRGTKDLDLSIFITNVYNNHSDY 120
Db 61 QKGEEFPKILRVENEVQLQEBEDEFRGRVWNSRGTKDLDLSIFITNVYNNHSDY 120

QY 121 CHYRLIFFENYEHNTSVVKIHEVVDKGESAA 155
Db 121 CHYRLIFFDNYEHTNTSVVKIHEVVDKANRDMA 155

RESULT 2
US-19-975-579-22
; Sequence 22, Application US/09997579
; Patent No. 6593365
; GENERAL INFORMATION:
; APPLICANT: Cambridge University Technical Services
; TITLE OF INVENTION: A novel family of beta sub-unit proteins from a voltage gated so channel
; TITLE OF INVENTION: nucleic acids encoding them and therapeutic or diagnostic uses

RESULT 4
 FILE REFERENCE: 674558-2001
 CURRENT APPLICATION NUMBER: US/09/997,579
 CURRENT FILING DATE: 2002-04-05
 PRIOR APPLICATION NUMBER: PCT/EP00/01783
 PRIOR FILING DATE: 2000-02-24
 PRIOR APPLICATION NUMBER: 60,129,473
 PRIOR FILING DATE: 2000-02-24
 NUMBER OF SEQ ID NCS: 47
 SOFTWARE: PatentIn version 3.1
 SEQ ID NO: 22
 LENGTH: 159
 TYPE: PRT
 ORGANISM: Homo sapiens
 US-09-997-579-22

Query Match 17.9%; Score 258.5; DB 4; Length 159;
 Best Local Similarity 43.2%; Pred. No. 8.2e-20;
 Matches 64; Conservative 20; Mismatches 57; Indels 7; Gaps 4;

Qy 5 LALVVGALVSSACGGCDEVDETEAVYGMFTKILCISCRKSERNAETTENFRQGT 64
 Db 10 LASVLIVWVSYCPVCEVSETEAQGNPMKLRCISCMKREVEATTVEWYRPEGG 69

Qy 65 EEFVKILRYENEVQLQEBEDERFEGRVVNGSRGTTKDLQDLSIFITNVNTYHSGDYECHY 124
 Db 70 KDFL-IYEVNRNGHQEVSP--FQGRQLWNS---KDLQDVSIITVNLNDSGLYTCNVS 123

Qy 125 RLFHENYEHNTSVVKHHIEVYDK-GE 151
 Db 124 REPFEEAHRFVKTTRILLPLRVTEAGE 151

RESULT 3
 US-09-997-579-2
 Sequence 2, Application US/09997579
 Patent No. 6593565
 GENERAL INFORMATION:
 TITLE OF INVENTION: A novel family of beta sub-unit proteins from a voltage gated sodium channel
 APPLICANT: Cambridge University Technical Services
 TITLE OF INVENTION: A novel family of beta sub-unit proteins from a voltage gated sodium channel
 FILE REFERENCE: 674558-2001
 CURRENT APPLICATION NUMBER: US/09/997,579
 CURRENT FILING DATE: 2002-04-05
 PRIOR APPLICATION NUMBER: PCT/EP00/01783
 PRIOR FILING DATE: 2000-02-24
 PRIOR APPLICATION NUMBER: 60,129,473
 PRIOR FILING DATE: 2000-02-24
 NUMBER OF SEQ ID NCS: 47
 SOFTWARE: PatentIn version 3.1
 SEQ ID NO: 2
 LENGTH: 215
 TYPE: PRT
 ORGANISM: Homo sapiens
 US-09-997-579-22

Query Match 17.9%; Score 258.5; DB 4; Length 215;
 Best Local Similarity 43.2%; Pred. No. 1.3e-19;
 Matches 64; Conservative 20; Mismatches 57; Indels 7; Gaps 4;

Qy 5 LALVVGALVSSACGGCDEVDETEAVYGMFTKILCISCRKSERNAETTENFRQGT 64
 Db 10 LASVLIVWVSYCPVCEVSETEAQGNPMKLRCISCMKREVEATTVEWYRPEGG 69

Qy 65 EEFVKILRYENEVQLQEBEDERFEGRVVNGSRGTTKDLQDLSIFITNVNTYHSGDYECHY 124
 Db 70 KDFL-IYEVNRNGHQEVSP--FQGRQLWNS---KDLQDVSIITVNLNDSGLYTCNVS 123

Qy 125 RLFHENYEHNTSVVKHHIEVYDK-GE 151
 Db 124 REPFEEAHRFVKTTRILLPLRVTEAGE 151

RESULT 5
 US-09-997-579-1
 Sequence 1, Application US/09997579
 Patent No. 6593565
 GENERAL INFORMATION:
 APPLICANT: Cambridge University Technical Services
 TITLE OF INVENTION: A novel family of beta sub-unit proteins from a voltage gated sodium channel
 FILE REFERENCE: 674558-2001
 CURRENT APPLICATION NUMBER: US/09/997,579
 CURRENT FILING DATE: 2002-04-05
 PRIOR APPLICATION NUMBER: PCT/EP00/01783
 PRIOR FILING DATE: 2000-02-24
 NUMBER OF SEQ ID NOS: 47
 SOFTWARE: PatentIn version 3.1
 SEQ ID NO: 1
 LENGTH: 215
 TYPE: PRT
 ORGANISM: Rat
 US-09-997-579-1

Query Match 17.8%; Score 257.5; DB 4; Length 215;
 Best Local Similarity 44.7%; Pred. No. 1.6e-19;
 Matches 59; Conservative 19; Mismatches 47; Indels 7; Gaps 4;

Qy 21 CVEVDSETAEVYGMFTKILCISCRKSERNAETTENFRQGTTEFVKILRYENEVQL 80
 Db 26 CVEVPSETAEVQGNPMLRCISCMKREVEATTVEWYRPEGGKDFL-IYEYRNQHEV 84

Qy 81 EEDERFEGRVWNGSRGTFKTDQLDSIFITNTVYHSSDYECHYRLLUFFENYEHTSVVK 140
 Db 85 ESP--FOGRLOONGS-- KDLQVSVTLYNVLNDSSLYTCNSREEFEAHRPFTKTR 139

Qy 141 KIHIEVDK-GE 151
 Db 140 LIPIRVTEBAGE 151

RESULT 6
 US-09-430-503-20
 ; Sequence 20, Application US/09430503
 ; Patent No. 6355786
 ; GENERAL INFORMATION:
 ; APPLICANT: Zhao, Zhihuang
 ; TITLE OF INVENTION: PURIFIED AND ISOLATED PROTEIN ZERO RELATED (PZR) AND
 ; TITLE OF INVENTION: THERAPEUTIC AND SCREENING METHODS USING SAME
 ; FILE REFERENCE: Attorney Docket No. 6355786 1242-11/2
 ; CURRENT APPLICATION NUMBER: US/09/430,503
 ; CURRENT FILING DATE: 1999-10-29
 ; NUMBER OF SEQ ID NOS: 49
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO: 20
 ; LENGTH: 209
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; US-09-430-503-20

Query Match 8.0%; Score 115.5; DB 4; Length 209;
 Best Local Similarity 30.6%; Pred. No. 0.00028;
 Matches 38; Conservative 17; Mismatches 62; Indels 7; Gaps 4;

Qy 3 RLLALVGAAL-VSSACGGCVEVDSETE--AVYGMTPKILCISCKRSSETNAETTEWT 59
 Db 18 RWLWSVLAALGLITAGSYALEVTPKEFVANGTQGLTCSKRSSETNAETTEWT 59

Qy 60 RQKGTEEFVKILRYENEVILQLEEDERFGRVWNGSGTKDQLDSLISITNTVYHSGDY 119
 Db 77 QPEGADTTVSFFHYSQGQVYLGNYPFPFKDRISW---AGDLDKDASINTENMQFHTNGTY 133

Qy 120 ECHV 123
 Db 134 ICDV 137

RESULT 7
 US-09-430-503-24
 ; Sequence 24, Application US/09430503
 ; Patent No. 6355786
 ; GENERAL INFORMATION:
 ; APPLICANT: Zhao, Zhihuang
 ; TITLE OF INVENTION: PURIFIED AND ISOLATED PROTEIN ZERO RELATED (PZR) AND
 ; TITLE OF INVENTION: THERAPEUTIC AND SCREENING METHODS USING SAME
 ; FILE REFERENCE: Attorney Docket No. 6355786 1242-11/2
 ; CURRENT APPLICATION NUMBER: US/09/430,503
 ; CURRENT FILING DATE: 1999-10-29
 ; NUMBER OF SEQ ID NOS: 49
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO: 24
 ; LENGTH: 209
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; US-09-430-503-24

Query Match 8.0%; Score 115.5; DB 4; Length 209;
 Best Local Similarity 30.6%; Pred. No. 0.00028;
 Matches 38; Conservative 17; Mismatches 62; Indels 7; Gaps 4;

Qy 3 RLLALVGAAL-VSSACGGCVEVDSETE--AVYGMTPKILCISCKRSSETNAETTEWT 59
 Db 18 RWLWSVLAALGLITAGSYALEVTPKEFVANGTQGLTCSKRSSETNAETTEWT 59

Qy 60 RQKGTEEFVKILRYENEVILQLEEDERFGRVWNGSGTKDQLDSLISITNTVYHSGDY 119

Db 77 QPEGADTVSFHYSGQVYLLGNYPPFKDRISW--AGLDLKDKDASINENMQFIHNGTY 133 Qy 120 ECHV 123
 Qy 120 ECHV 123
 |
 Db 134 ICDV 137

RESULT 10
 US-09-430-503-8
 ; Sequence 8, Application US/09430503
 ; Patent No. 6355786
 ; GENERAL INFORMATION:
 ; APPLICANT: Zhao, Zhihuang
 ; TITLE OF INVENTION: PURIFIED AND ISOLATED PROTEIN ZERO RELATED (PZR) AND
 ; TITLE OF INVENTION: THERAPEUTIC AND SCREENING METHODS USING SAME
 ; FILE REFERENCE: Attorney Docket No. 6355786 1242-11/2
 ; CURRENT APPLICATION NUMBER: US/09/430,503
 ; CURRENT FILING DATE: 1999-10-29
 ; NUMBER OF SEQ ID NOS: 49
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO: 8
 ; LENGTH: 269
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-09-430-503-8

Query Match Score 8.0% Best Local Similarity 30.6% Pred. No. 0.0004;
 Matches 38; Conservative 17; Mismatches 62; Indels 7; Gaps 4;
 Qy 3 RILALVVAAL-VSSACCCGVCEVDSETE-AVYGMFVKILCISKCRSETNAETFTENTP 59
 Db 18 RWLWSVLAALGILTAGSYALEVTPKEIYANGTQKLC-KFKSTSTGGLTSVWSF 76
 Qy 60 RQKGTEEFVKILRYENEVQLQEBDERFGRVWNGSRGTRQLQDISIFTINVTNHSGY 119
 Db 77 QPEGADTVSFHYSGQVYLLGNYPPFKDRISW--AGLDLKDKDASINENMQFIHNGTY 133
 Qy 120 ECHV 123
 Db 134 ICDV 137

RESULT 11
 US-09-430-503-34
 ; Sequence 34, Application US/09430503
 ; Patent No. 6355786
 ; GENERAL INFORMATION:
 ; APPLICANT: Zhao, Zhihuang
 ; TITLE OF INVENTION: PURIFIED AND ISOLATED PROTEIN ZERO RELATED (PZR) AND
 ; TITLE OF INVENTION: THERAPEUTIC AND SCREENING METHODS USING SAME
 ; FILE REFERENCE: Attorney Docket No. 6355786 1242-11/2
 ; CURRENT APPLICATION NUMBER: US/09/430,503
 ; CURRENT FILING DATE: 1999-10-29
 ; NUMBER OF SEQ ID NOS: 49
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO: 34
 ; LENGTH: 159
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-09-430-503-34

Query Match Score 7.9% Best Local Similarity 30.6% Pred. No. 0.00024;
 Matches 38; Conservative 15; Mismatches 64; Indels 7; Gaps 4;
 Qy 3 RILALVVAALVSSACCG-GCCEVDSETE-AVYGMFVKILCISKCRSETNAETFTENTP 59
 Db 18 RWLWSVLAALGILTAGSYALEVTPKEIYANGTQKLC-KFKSTSTGGLTSVWSF 76
 Qy 60 RQKGTEEFVKILRYENEVQLQEBDERFGRVWNGSRGTRQLQDISIFTINVTNHSGY 119
 Db 77 QPEGADTVSFHYSGQVYLLGNYPPFKDRISW--AGLDLKDKDASINENMQFIHNGTY 133

Qy 120 ECHV 123
 Db 134 ICDV 137

Db 134 ICDV 137

Search completed: September 21, 2004, 17:16:54
 Job time : 34 secs

RESULT 14
 US-09-430-503-46
 ; Sequence 46 Application US/09430503
 ; GENERAL INFORMATION:
 ; APPLICANT: Zhao, ZhiZhuang
 ; TITLE OF INVENTION: PURIFIED AND ISOLATED PROTEIN ZERO RELATED (PZR) AND
 ; TITLE OF INVENTION: THERAPEUTIC AND SCREENING METHODS USING SAME
 ; FILE REFERENCE: Attorney Docket No. 6355786 1242-11/2
 ; CURRENT APPLICATION NUMBER: US/09/430,503
 ; CURRENT FILING DATE: 1999-10-29
 ; SEQ ID NO 46
 ; NUMBER OF SEQ ID NOS: 49
 ; SOFTWARE: PatentIn Ver. 2.0
 ; LENGTH: 199
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-09-430-503-46

Query Match 7.9%; Score 114.5; DB 4; Length 199;
 Best Local Similarity 30.6%; Pred. No. 0.0003;
 Matches 38; Conservative 15; Mismatches 64; Indels 7; Gaps 4;

Qy 3 RLLALVVAALVSSAACG-GCVELVDSEEE-AVYGMFTKILCSCRRESETNAETTETWTF 59
 Db 18 RWLWSVLAALGLTAGSVALEYTPREIIVANGTQQKLTC-KFKSTSTTGGLTsvwsfp 76
 Qy 60 RQKGTEEVFKIRYENEVQLQEDDERREGRVWNGSSGTXDLDLSITFIVTVYHNSGYD 119
 Db 77 QPEGADTTVSPHYSSQGVLYGNYPFPKDRISW--AGDLDKKDASINNIENMQFIHNGTY 133

Qy 120 ECHV 123
 Db 134 ICDV 137

RESULT 15
 US-09-430-503-18
 ; Sequence 18 Application US/09430503
 ; Patent No 6355786
 ; GENERAL INFORMATION:
 ; APPLICANT: Zhao, ZhiZhuang
 ; TITLE OF INVENTION: PURIFIED AND ISOLATED PROTEIN ZERO RELATED (PZR) AND
 ; TITLE OF INVENTION: THERAPEUTIC AND SCREENING METHODS USING SAME
 ; FILE REFERENCE: Attorney Docket No. 6355786 1242-11/2
 ; CURRENT APPLICATION NUMBER: US/09/430,503
 ; CURRENT FILING DATE: 1999-10-29
 ; NUMBER OF SEQ ID NOS: 49
 ; SEQ ID NO 18
 ; LENGTH: 209
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-09-430-503-18

Query Match 7.9%; Score 114.5; DB 4; Length 209;
 Best Local Similarity 30.6%; Pred. No. 0.0003;
 Matches 38; Conservative 15; Mismatches 64; Indels 7; Gaps 4;

Qy 3 RLLALVVAALVSSAACG-GCVELVDSEEE-AVYGMFTKILCSCRRESETNAETTETWTF 59
 Db 18 RWLWSVLAALGLTAGSVALEYTPREIIVANGTQQKLTC-KFKSTSTTGGLTsvwsfp 76
 Qy 60 RQKGTEEVFKIRYENEVQLQEDDERREGRVWNGSSGTXDLDLSITFIVTVYHNSGYD 119
 Db 77 QPEGADTTVSPHYSSQGVLYGNYPFPKDRISW--AGDLDKKDASINNIENMQFIHNGTY 133

Qy 120 ECHV 123

